

## One new and one newly recorded olethreutine moth (Lepidoptera, Tortricidae) from Japan

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**Abstract** *Gypsonoma kawabei* Nasu & Kusunoki, n. sp., is described from Hokkaido, Japan. *Eucosma tundrana* (Kennel) is newly added to the tortricid fauna of Japan.

**Key words** *Gypsonoma kawabei* Nasu & Kusunoki, n. sp., *Eucosma tundrana* (Kennel), Tortricidae, Japan.

Recently we examined two unfamiliar olethreutine moths from Hokkaido (Japan) and concluded that they represent a new species of *Gypsonoma* and a species of *Eucosma* hitherto unrecorded from Japan. In the following lines we will describe the former as new to science and record the latter as new to the moth fauna of Japan, with illustrations of adults and genitalia.

***Gypsonoma kawabei*** Nasu & Kusunoki, n. sp. (Figs 1, 3, 4)

Male (Fig. 1). Wing expanse 15 mm. Head light grayish brown. Antenna grayish brown. Labial palpus light grayish brown, pale yellow on inner surface. Thorax and tegula light grayish brown. Forewing elongate, without costal fold. Ground color dark grayish olive overlaid with pale reddish yellow, in apical 1/3 pale reddish yellow. Costa with several irregular pale yellow strigulae. Median fascia obscure, represented by pale reddish yellow band running from middle of costa to apical 1/3 of dorsum. Cilia dark grayish olive. Hindwing light grayish brown, cubital pecten present; cilia concolorous with wing.

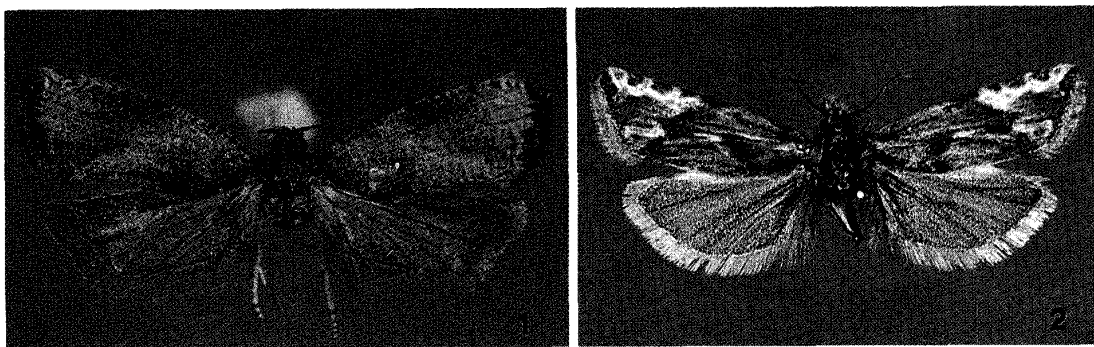
Male genitalia (Fig. 3). Tegumen with tufts of slender phylliform scales on ventro-lateral part and bulbous lobe connected with it. Uncus undeveloped. Socius triangular, setose on outer surface. Gnathos weakly sclerotized. Valva somewhat constricted at posterior 1/3; costal hook large; basal opening small, with mound-like process on posterior edge. Cucullus oval, with many short stout setae on ventral part. Aedeagus cone-shaped, with 12 deciduous cornuti.

Female. Wing expanse 15 mm. Similar to the male.

Female genitalia (Fig. 4). Papilla analis small. Apophysis posterioris shorter than apophysis anterioris. Sterigma cone-shaped. Ductus bursae sclerotized in posterior half. Corpus bursae globular, with numerous small ring-like sclerotizations on inner surface; signa consisting of two slender horn-like sclerotizations.

Material examined. Holotype. JAPAN: Hokkaido: Asahikawa, Kaguraoka, ♂, 2. VII. 1993 (Y. Kusunoki leg.), genitalia slide YN-756, deposited in the Entomological Laboratory, Osaka Prefecture University, Sakai, Japan. Paratypes. Same locality as holotype, 1 ♀, 28. VII. 1993, genitalia slide YN-812; 1 ♀, 19. VII. 1994 (Y. Kusunoki leg.), in coll. Nasu.

Distribution. Japan (Hokkaido).



Figs 1, 2. Adults. 1. *Gypsonoma kawabei* Nasu & Kusunoki, n. sp., holotype, ♂. 2. *Eucosma tundra* (Kennel), ♂.

Host-plant. Unknown.

Etymology. This species is named in honor of the late Mr A. Kawabe.

Remarks. The species resembles *G. hiranoi* Kawabe, 1980, but differs from it in having an obscure pale reddish yellow median fascia, dark grayish olive cilia in the forewing, the valva somewhat constricted in the male genitalia and a cone-shaped sterigma in the female genitalia.

### *Eucosma tundra* (Kennel) (Figs 2, 5)

*Semasia tundra* Kennel, 1900, *Dt. ent. Z. Iris* **13**: 148, pl. 5, figs 24, 25; Rebel, 1901: 262; Kennel, 1916: 523, pl. 20, fig. 20 (adult).

*Eucosma (Phaneta) tundra*: Hannemann, 1961: 133, fig. 266 (♂ genitalia), pl. 5, fig. 13, pl. 21, fig. 7 (adult); Obraztsov, 1968: 238.

*Eucosma (Calosetia) tundra*: Kuznetsov, 1978: 531, fig. 457-3 (wing), fig. 456-1 (♂ genitalia).

*Eucosma tundra*: Kuznetsov, 1967: 63; Razowski, 1972a: 126; Kuznetsov, 1975: 430; Kuznetsov, 1976: 100; Razowski, 1996: 150.

*Semasia cordulana* Rebel, 1917, *Dt. ent. Z. Iris* **30**: 192.

*Eucosma cordulana*: Obraztsov, 1968: 238 (as a synonym of *tundra*); Razowski, 1972b: 154.

Material examined. JAPAN: Hokkaido: Mt Shokanbetsu-dake (1,450 m), 2 ♂, 1. VII. 1995 (N. Yasuda leg.), in coll. Nasu.

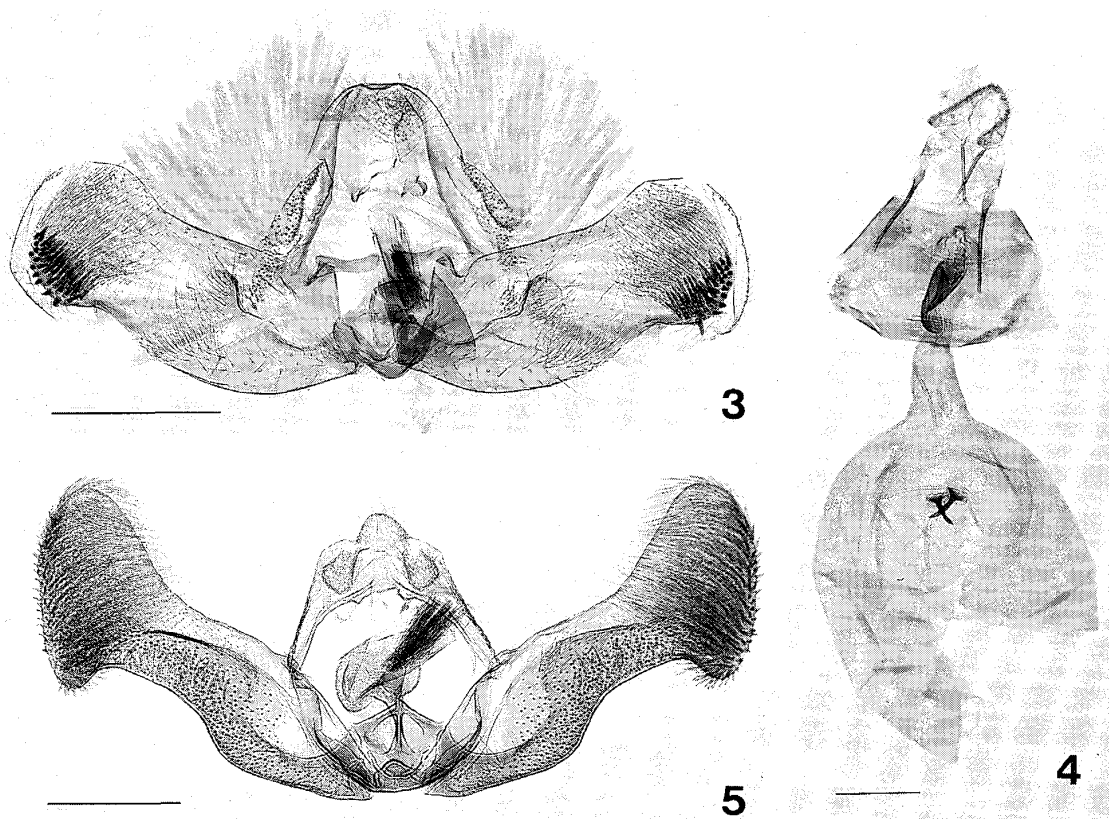
Distribution. Germany, Czech Republic, Slovakia, Hungary, Romania, Russia, Mongolia, China (the Northeast part), Japan (Hokkaido). New to Japan.

Host-plant. Unknown.

Biological note. The moths flew about a field of alpine flowers in the daytime (Yasuda, *pers. comm.*).

Remarks. The moth examined here is superficially similar to the color illustration of *tundra* by Kennel (1916), but has a darker basal patch in the forewing and a somewhat smaller cucullus in the male genitalia compared with those figured by Hannemann (1961) and Kuznetsov (1978). Although there are these small differences between the Japanese and European moths, we regard the Japanese one as *tundra*.

The species resembles individuals of *E. metzneriana* (Treitschke, 1830) with distinct markings, but is distinguishable from them in having a slender forewing, a dark basal patch, a dark median fascia, an irregular whitish patch on the apical costa, a triangular uncus with a round



Figs 3-5. Male and female genitalia. 3. *Gypsonoma kawabei* Nasu & Kusunoki, n. sp., holotype, ♂, YN-756 4. *Ditto*. Paratype, ♀, YN-812. 5. *Eucosma tundrana* (Kennel), ♂, YN-753. (Scale=0.5 mm).

top and an oval cucullus in the male genitalia.

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## 摘 要

日本産ヒメハマキガ (鱗翅目, ハマキガ科) の 1 新種と 1 新記録種 (那須義次・楠 祐一)

*Gypsonoma kawabei* Nasu & Kusunoki, n. sp. ムジシロチャヒメハマキ (新称) (Figs 1, 3, 4)

前翅開張 15 mm. 前翅の地色は暗灰オリーブ色で, 不明瞭な薄赤黄色の中帯を有する. Cilia は暗灰オリーブ色.

分布: 日本 (北海道).

本種は *G. hiranoi* Kawabe ヒラノヒメハマキに類似するが, 前翅は不明瞭な薄赤黄色の中帯を持つこと, 暗灰オリーブ色の cilia を持つこと, 雄交尾器はわずかにくびれる valva を持つこと, 雌交尾器は円錐形の sterigma を持つことにより区別できる.

*Eucosma tundrana* (Kennel) トビモンヒメハマキ (新称) (Figs 2, 5)

日本新記録種.

分布: ドイツ, チェコ, スロバキア, ハンガリー, ルーマニア, ロシア, モンゴル, 中国 (東北部), 日本 (北海道).

本種は *E. metzneriana* (Treitschke) トビモンシロヒメハマキの斑紋が明瞭な個体に類似するが, 前翅はより細いこと, 暗色の基斑を持つこと, 暗色の中帯を有すること, 前縁の翅頂部に不規則な白色紋があること, 雄交尾器は頂がまるい 3 角形の uncus を持つこと, 卵形の cucullus を持つことにより区別できる.

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